



Arch Chemicals, Inc.

MATERIAL SAFETY DATA

| | |
|---|----------------|
| FOR ANY EMERGENCY, CALL 24 HOURS/7 DAYS: | 1-800-654-6911 |
| FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®: | 1-800-424-9300 |
| FOR ALL MSDS QUESTIONS & REQUESTS, CALL MSDS CONTROL: | 1-800-511-MSDS |

PRODUCT NAME: HTH® FILTER AID

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

REVISION DATE: 03-06-2000 SUPERCEDES: 06-21-1999
MSDS NO: 00473-0004 - 61306

MANUFACTURER: Arch Chemicals, Inc. 501 Merritt 7 PO Box 5204 Norwalk, CT 06856-5204

SYNONYMS: Diatomaceous Earth, D.E.

CHEMICAL FAMILY: Silica

FORMULA: SiO₂

USE DESCRIPTION: Filter medium for spas and swimming pools

OSHA HAZARD CLASSIFICATION: Eye and upper respiratory tract irritant; lung toxin; carcinogen

SECTION 2 COMPONENT DATA

PRODUCT COMPOSITION

CAS or CHEMICAL NAME: Diatomite, flux calcined

CAS NUMBER: 68855-54-9

PERCENTAGE RANGE: 100%

HAZARDOUS PER 29 CFR 1910.1200: Yes

EXPOSURE STANDARDS:

| | OSHA (PEL) | ACGIH (TLV) | | |
|------|--------------------------------------|----------------|-----|----------------|
| | ppm | mg/cubic-meter | ppm | mg/cubic-meter |
| TWA: | 20 mppcf or <u>80 mg/cubic meter</u> | 3 | | |
| | % SiO ₂ | | | |

CEILING: None

None

STEL: None

None

May contain the following forms of Silicon dioxide:

CAS or CHEMICAL NAME: Cristobalite

CAS NUMBER: 14464-46-1

PERCENTAGE RANGE: 40-80%

HAZARDOUS PER 29 CFR 1910.1200: Yes

EXPOSURE STANDARDS:

| | OSHA (PEL) | ACGIH (TLV) | | |
|----------|------------------------|----------------|------|----------------|
| | ppm | mg/cubic-meter | ppm | mg/cubic-meter |
| TWA: | 1/2 the PEL for Quartz | 0.05 | | |
| CEILING: | None | | None | |
| STEL: | None | | None | |

CAS or CHEMICAL NAME: Quartz

CAS NUMBER: 14808-60-7

PERCENTAGE RANGE: < 1%

HAZARDOUS PER 29 CFR 1910.1200: Yes

EXPOSURE STANDARDS:

EXPOSURE STANDARDS:

| | OSHA (PEL) | ACGIH (TLV) |
|----------|---|--------------------|
| | ppm mg/cubic-meter | ppm mg/cubic-meter |
| TWA: | <u>30 mg/cubic meter</u> (total dust) % SiO ₂ + 2 | 0.1 |
| | or <u>250 mppcf</u> (respirable dust)_ % SiO ₂ + 5 | |
| | or <u>10 mg/cubic meter</u> (respirable dust) % SiO ₂ + 2 | |
| CEILING: | None | None |
| STEL: | None | None |

SECTION 3 PRECAUTIONS FOR SAFE HANDLING AND STORAGE

DO NOT TAKE INTERNALLY. AVOID CONTACT WITH SKIN, EYES AND CLOTHING. UPON CONTACT WITH SKIN OR EYES, WASH OFF WITH WATER. DO NOT BREATHE DUST.

STORAGE CONDITIONS:

DO NOT STORE AT TEMPERATURES ABOVE: Not Applicable

PRODUCT STABILITY AND COMPATIBILITY

SHELF LIFE LIMITATIONS: Inert material, no limitation under normal storage conditions

INCOMPATIBLE MATERIALS FOR STORAGE OR TRANSPORT: Hydrofluoric acid

SECTION 4 PHYSICAL DATA

APPEARANCE: Off-white powder

FREEZING POINT: Not Applicable

BOILING POINT: Not Applicable - Sintering point 1593 Deg.C (2900 Deg.F)

DECOMPOSITION TEMPERATURE: Not Applicable

SPECIFIC GRAVITY: 2.3

BULK DENSITY: No Data

pH @ 25 DEG.C: Not Applicable

VAPOR PRESSURE @ 25 DEG.C: Not Applicable

SOLUBILITY IN WATER: Not Applicable

VOLATILES, PERCENT BY VOLUME: Not Applicable

EVAPORATION RATE: Not Applicable

VAPOR DENSITY: Not Applicable

MOLECULAR WEIGHT: 60.09

ODOR: None

COEFFICIENT OF OIL/WATER DISTRIBUTION: Not Applicable

SECTION 5 PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

PERSONAL PROTECTION FOR ROUTINE USE OF PRODUCT:

RESPIRATORY PROTECTION: If dusting occurs, wear a NIOSH approved N95 dust respirator.

VENTILATION: Local exhaust ventilation is recommended to maintain levels to below TLV

SKIN AND EYE PROTECTIVE EQUIPMENT: Wear safety glasses with side shields or chemical goggles.

EQUIPMENT SPECIFICATIONS (WHEN APPLICABLE) :

RESPIRATOR TYPE: NIOSH approved N95 dust respirator

PROTECTIVE CLOTHING TYPE (This includes: gloves, apron): Impervious

SECTION 6 FIRE AND EXPLOSION HAZARD INFORMATION

FLAMMABILITY DATA:

FLAMMABLE: No
COMBUSTIBLE: No
PYROPHORIC: No
FLASH POINT: Not Applicable
AUTOIGNITION TEMPERATURE: Not Applicable
FLAMMABLE LIMITS AT NORMAL ATMOSPHERIC TEMPERATURE AND PRESSURE (PERCENT VOLUME IN AIR): LEL - Not Applicable UEL - Not Applicable

NFPA RATINGS: Not Established

HMIS RATINGS:

Health: 1*
Flammability: 0
Reactivity: 0

EXTINGUISHING MEDIA: Not Applicable-Choose extinguishing media suitable for surrounding materials.

FIRE FIGHTING TECHNIQUES AND COMMENTS: Use water to cool containers exposed to fire. See Section 11 for protective equipment for fire fighting.

SECTION 7 REACTIVITY INFORMATION

CONDITIONS UNDER WHICH THIS PRODUCT MAY BE UNSTABLE:

TEMPERATURES ABOVE: Not Applicable
MECHANICAL SHOCK OR IMPACT: No
ELECTRICAL (STATIC) DISCHARGE: No
HAZARDOUS POLYMERIZATION: Will not occur
INCOMPATIBLE MATERIALS: Hydrofluoric acid
HAZARDOUS DECOMPOSITION PRODUCTS: None

SUMMARY OF REACTIVITY:

OXIDIZER: No
PYROPHORIC: No
ORGANIC PEROXIDE: No
WATER REACTIVE: No

SECTION 8 FIRST AID

EYES: Immediately flush with large amounts of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Call a physician at once.

SKIN: Not a skin irritant. Washing any substance off the skin with water is a good safety practice.

INGESTION: This product is not toxic by ingestion. Drink water to dilute.

INHALATION: If person experiences nausea, headache or dizziness, person should stop work immediately and move to fresh air until these symptoms disappear. If breathing is difficult, administer oxygen, keep the person warm and at rest. Call a physician. In the event that an individual inhales enough dust to lose consciousness, person should be moved to fresh air at once and a physician should be called immediately. If breathing has stopped, artificial respiration should be given immediately. In all cases, ensure adequate ventilation and provide respiratory protection before the person returns to work.

SECTION 9 TOXICOLOGY AND HEALTH INFORMATION

ROUTES OF ABSORPTION

Inhalation, ingestion

WARNING STATEMENTS AND WARNING PROPERTIES

CAN CAUSE LUNG DAMAGE. CAN CAUSE EYE AND UPPER RESPIRATORY TRACT IRRITATION. CONTAINS CRYSTALLINE SILICA WHICH CAN CAUSE CANCER.

HUMAN THRESHOLD RESPONSE DATA

ODOR THRESHOLD: None known or reported

IRRITATION THRESHOLD: None known or reported

IMMEDIATELY DANGEROUS TO LIFE OR HEALTH: : No IDLH concentration has been established for this product. The IDLH for respirable silica is 50 mg/cubic-meter as quartz and 25 mg/cubic-meter for cristobalite.

No IDLH concentration has been established for this product mixture or the individual constituents.

SIGNS, SYMPTOMS, AND EFFECTS OF EXPOSURE

INHALATION

ACUTE:

Inhalation of the dust from this material at concentrations above the TLV may result in upper respiratory tract irritation.

CHRONIC:

Chronic (repeated) exposures to the dust of this material may cause silicosis which involves the formation of fibrous tissue in the lungs and pulmonary impairment. (Also see Section 13)

SKIN

ACUTE:

None known or reported

CHRONIC:

None known or reported

EYE

Exposure of the dust can cause mechanical irritation to the eyes.

INGESTION

ACUTE:

None known or reported

CHRONIC:

None known or reported

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

The inhalation of the dust from this material at concentrations above the TLV can aggravate pre-existing upper respiratory and lung diseases such as bronchitis, emphysema and asthma.

INTERACTIONS WITH OTHER CHEMICALS WHICH ENHANCE TOXICITY

None known or reported

ANIMAL TOXICOLOGY

ACUTE TOXICITY:

Inhalation LC 50: None known or reported

Dermal LD 50: Believed to be > 2 g/kg. (rabbit)

Oral LD 50: > 5.0 g/kg. (rat)

Irritation: Reversible mechanical eye irritant; upper respiratory tract irritant

ACUTE TARGET ORGAN TOXICITY:

Reversible mechanical irritation to the eyes and at concentrations above the TLV an upper respiratory tract irritant.

CHRONIC TARGET ORGAN TOXICITY:

Chronic (repeated) inhalation of this material above the TLV may result in a condition known as silicosis which involves the formation of fibrous tissue in the lungs and pulmonary impairment. This material can contain up to 80% of crystalline silica in the forms of cristobalite and quartz. The International Agency for Research on Cancer (IARC) has classified crystalline silica as a human carcinogen (Group I) and indicates that persons occupationally exposed to crystalline silica that develop pulmonary disease are at an increased risk for developing lung cancer.

REPRODUCTIVE AND DEVELOPMENTAL TOXICITY

None known or reported

CARCINOGENICITY:

IARC indicates that persons occupationally exposed to crystalline silica that develop pulmonary disease are at an increased risk to develop lung cancer. (See Section 13)

MUTAGENICITY:

None known or reported

AQUATIC TOXICITY:

None known or reported

SECTION 10 TRANSPORTATION INFORMATION

THIS MATERIAL IS NOT REGULATED AS A DOT HAZARDOUS MATERIAL.

SECTION 11 SPILL AND LEAKAGE PROCEDURES

FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC AT 800-424-9300.

REPORTABLE QUANTITY: Not Applicable

SPILL MITIGATION PROCEDURES:

Evacuation procedures must be placed into effect. Evacuate all non-essential personnel. Hazardous concentrations in air may be found in local spill area. Utilize emergency response personal protective equipment prior to the start of any response. Stop source of spill as soon as possible and notify appropriate personnel.

AIR RELEASE: Dust, if present, may be suppressed by the use of water fog but is unlikely to occur. Contain all liquid for treatment and/or disposal as a (potential) hazardous waste.

WATER RELEASE: Notify all downstream water users of possible contamination. Divert water flow around spill if possible and safe to do so. Continue to handle as described in land spill.

LAND SPILL: Do not place spill materials back in their original container. Containerize and label all spill materials properly. Decontaminate all clothing and the spill area using soap solution and flush with large amounts of water. Material may be removed using a vacuum system or network of pumps. Off-white powder (avoid breathing

dust, stay up-wind).

SPILL RESIDUES:

Dispose of per guidelines under Section 12, WASTE DISPOSAL.

PERSONAL PROTECTION FOR EMERGENCY SPILL AND FIRE-FIGHTING SITUATIONS:

In case of fire, use normal fire fighting equipment, compatible to surrounding material.

Additional respiratory protection is necessary when this product is involved in a spill or fire involving this product. You are recommended to use a NIOSH approved self-contained breathing apparatus (SCBA) positive pressure unit.

Compatible materials for response to this material are neoprene and butyl rubber.

SECTION 12 WASTE DISPOSAL

If this product becomes a waste, it DOES NOT meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of hazardous waste of Subpart C, nor is it listed as a hazardous waste under Subpart D.

As a non-hazardous solid waste it should be disposed of in accordance with local, state, and federal regulations by disposal in sanitary landfill.

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THIS MATERIAL. THE USER OF THIS MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.

SECTION 13 ADDITIONAL REGULATORY STATUS INFORMATION

TOXIC SUBSTANCES CONTROL ACT:

The components of this product are listed on the Toxic Substance Control Act inventory.

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986 - PROPOSITION 65:

"WARNING: This product contains a chemical(s) known to the State of California to cause cancer."

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT TITLE III:

HAZARD CATEGORIES, PER 40 CFR 370.2:

HEALTH:

Immediate (Acute)

Delayed (Chronic)

PHYSICAL:

None

EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW, PER 40 CFR 355, APP.A:

EXTREMELY HAZARDOUS SUBSTANCE - THRESHOLD PLANNING QUANTITY:

None Established

SUPPLIER NOTIFICATION REQUIREMENTS, PER 40 CFR 372.45:

None Established

SECTION 14 ADDITIONAL INFORMATION

MSDS REVISION STATUS: Revision to Sections 1, 2, 5, 6, 9, 11, 13 and 15

SECTION 15 MAJOR REFERENCES

1. Finkel, A.J., Hamilton and Hardy's Industrial Toxicology, 4th Edition; John Wright, PSG, Inc., 1983.
2. Material Safety Data Sheet for Kenite, Celite Corporation, Lompac, CA. 5/15/95.

Additional references are available upon request.

THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200. THE INFORMATION IN THIS MSDS SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. ARCH CHEMICALS BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION BUT, MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS MSDS IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT ARCH CHEMICALS MSDS CONTROL AT THE PHONE NUMBER ON THE FRONT PAGE TO MAKE CERTAIN THAT THIS DOCUMENT IS CURRENT.

Arch Chemicals, Inc.
MSDS Control
501 Merritt 7
PO Box 5204
Norwalk, CT 06856-5204